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Arizona Corporation Commission DOCKETED

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1 Thomas L. Mumaw Melissa M. Krueger DOCKETED IN m Pinnacle West Capital Corporation 400 North 5th Street, MS 8695 2 AZ CORP COMMISSION Phoenix, Arizona 85004 3 Tel: (602) 250-3630 DOCKET CONTROL 4 Fax: (602) 250-3393 2012 DEC 13 PM 3 57 E-Mail: Thomas.Mumaw@pinnaclewest.com 5 Melissa.Krueger@pinnaclewest.com 6 Attorneys for Arizona Public Service Company 7 8 BEFORE THE ARIZONA CORPORATION COMMISSION 9 **COMMISSIONERS** 10 GARY PIERCE, Chairman **BOB STUMP** 11 SANDRA D. KENNEDY PAUL NEWMAN 12 **BRENDA BURNS** 13 DOCKET NO. E-01345A-12-0224 14 SUPPLEMENT TO APPLICATION IN THE MATTER OF THE APPLICATION 15 OF ARIZONA PUBLIC SERVICE FOR APPROVAL OF ARIZONA **COMPANY FOR APPROVAL OF ITS 2013** PUBLIC SERVICE COMPANY'S 16 2013 DEMAND SIDE DEMAND SIDE MANAGEMENT **IMPLEMENTATION PLAN** MANAGEMENT 17 IMPLEMENTATION PLAN AND REQUEST FOR ONE YEAR 18 EXTENSION AND BUDGET **INCREASE FOR HOME ENERGY** 19 INFORMATION PILOT 20 I. INTRODUCTION 21 Arizona Public Service Company ("APS") submits the attached supplement to its 22 2013 Demand Side Management Implementation Plan ("Plan").

The supplement responds to the Commission's request for information regarding the potential impacts of allowing Freeport McMoRan ("FMI") to opt out of APS's Demand Side Management ("DSM") program and the Demand Side Management Adjuster Charge ("DSMAC"), and the impact of including unrecovered fixed costs in each measure evaluation. The supplement also asks the Commission for additional funding to support the Home

Energy Information Pilot ("HEIP" or "HEI Pilot") and for a one year extension of this program.

Finally, the supplement includes the following information: impacts of proposed new and/or enhanced measures, environmental impacts, proposed 2013 budget and calculation of the reduced DSMAC charge for 2013, net benefits information, and further information about APS's Resource Savings Initiative.

The supplement fully addresses both the issues carried over from the 2012 DSM Plan (FMI and unrecovered fixed costs) and those common to all annual implementation plans (net benefits, budget, new DSMAC, etc.). What are completely new are the various requests relative to the HEIP, and thus APS will briefly discuss them here. Similarly, the Company's resource savings initiative brings a new perspective to traditional DSM implementation plan considerations and will be briefly explained here.

II. EXTENSION OF HEIP

The HEIP involves the deployment of four Home Area Network technologies as well as APS's Pre-Pay program. The HEI Pilot was approved in Commission Decision No. 72214 (March 3, 2011). The program was originally intended to be implemented during the summer periods in 2011 and 2012, but due to the timing of the initial approval, APS sought and was granted in Commission Decision No. 73089 (April 5, 2012) an extension of time through 2013 to implement the HEIP, but with no additional funding.

The Pre-Pay element of the HEI Pilot Program was deployed in July of 2012. APS anticipates that the other four technologies, including critical peak pricing with customer control device, in-home energy information displays, direct load control, and use of "smart" communication devices to monitor and control demand (hereafter "Programs A-D") will be ready for deployment by the end of the second quarter of 2013. These complex technology driven programs require several advanced systems to be securely integrated between APS and its vendors. As a result, they have taken more time

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Evaluation and Research ("MER") study process in order to properly evaluate the persistence and validity of the individual technology assessments, as well as the associated customer behavior patterns. Thus, APS requests that the Commission: (1) extend the HEI Pilot Programs A-D for an additional year, through the end of 2014, so that it may have two full, successive summer seasons of data for its MER study; (2) authorize APS to continue to recover the carrying costs associated with HEIP through the DSMAC up until the next rate case proceeding; (3) approve an additional \$310,000 in non-capital program costs through the extension period;² and (4) approve an additional \$1,051,000 of capital costs through the extension period ending December 31, 2014, plus the amortization and recovery through the DSMAC of carrying costs associated with this additional capital spending by APS over the 48 months ending July 1, 2016. Only the non-capital costs and the carrying costs associated with the capital spending are collected through the DSMAC, which amounts to \$2.84 million related to the HEI Pilot in 2013.

III. APS RESOURCE SAVINGS INITIATIVE

In its Plan, APS proposed a Resource Savings Initiative through which it will investigate and quantify the impacts of EE improvements to APS's facilities, generation, transmission and delivery systems. APS indicated in its Plan that it planned to count facilities and generation improvements toward meeting its EE goals beginning in 2014. Upon further review, APS requests that it be allowed to count quantifiable savings from facilities and generation improvements beginning in 2013. These improvements result in measurable EE savings that are as real as any savings that the Company can achieve

When Decision No. 72214 approved the original \$698,837 in capital carrying costs, it was anticipated that these costs would be rolled into base rates in 15 months. This is no longer possible, hence the need to continue their recovery through the DSMAC until 2016.

This additional O&M is not needed until 2014 and therefore will not impact either the 2013 DSM Plan budget or the 2013 DSMAC.

with customer funded EE incentives. APS knows these types of savings are beneficial to APS customers because they reduce APS's cost of service and ultimately help APS achieve its DSM goal at a lower cost to all our customers. Given these considerations, there is no reason to delay counting these valuable savings toward meeting APS's DSM goal.

APS's plan also requested exemption from A.A.C. R14-2-2404(H) to allow it to count transmission and delivery system improvements. Like facilities and generation improvements, savings from transmission and delivery system improvements provide real savings that will reduce the cost of service and help APS achieve its DSM goal at a lower cost to customers. Thus, APS requests permission to begin counting these equally valuable energy savings in 2013.

IV. CONCLUSION

For the reasons discussed above and in APS's Plan and supplement, APS requests that the Commission set this matter for open meeting and issue an order as follows:

- (i) Approving APS's 2013 DSM Plan and proposed budget;
- (ii) Approving the DSMAC effective the first billing cycle in March of 2013;
- (iii) Approving that APS may count toward meeting its DSM goal up to fifty percent of the savings from codes and standards initiatives, rather than the 33% contained in A.A.C. R14-2-2404(E);
- (iv) Approving that APS may count toward meeting its DSM goal savings from facilities and generation improvements;
- (v) Waiving A.A.C. R14-2-2404(H) and approving that APS may count toward meeting its DSM goal savings from transmission and delivery system improvements; and
- (vi) Approving the revised HEIP budget, approving a one year extension of Programs A-D of HEIP, and authorizing the collection of \$2.84 million through the DSMAC to support HEIP in 2013.

1	RESPECTFULLY SUBMITTED this 13 th day of December, 2012.	
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3	By: Munaw Thomas L. Mumaw	
4	Melissa M. Krueger Attorneys for Arizona Public	
5	Service Company	
6		
7	ORIGINAL and thirteen (13) copies of the foregoing filed this 13 th day of	
8	December, 2012, with:	
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10	1200 West Washington Street Phoenix, Arizona 85007	
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Arizona Public Service Company

2013 Demand Side Management Implementation Plan

Supplemental Filing

December 2012

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I. Introduction

Arizona Public Service Company ("APS" or "Company") files this Supplement to the 2013 Demand Side Management Implementation Plan ("Plan") to address certain elements associated with cost effectiveness and additional Commissioner requests. This Supplement provides further detail to the Plan submitted to the Arizona Corporation Commission ("ACC" or "Commission") on June 1, 2012. For the reader's convenience the elements included in the Supplement are listed below.

- Impacts of new and enhanced measures;
- Portfolio budget estimate;
- Net benefits calculation;
- Performance incentive calculation:
- Environmental impact of the Demand Side Management ("DSM") Plan;
- APS System Savings Initiative overview;
- Extension of time and funding to complete certain segments of the Home Energy Information Pilot program ("HEI Pilot");
- Potential Impacts of allowing Freeport McMoRan to opt out of APS's DSM program, and
- Impact of including Unrecovered Fixed Costs ("UFC") in the cost effectiveness evaluation.

APS estimates its DSM Portfolio, which includes Energy Efficiency ("EE") and Demand Response ("DR") programs, will produce first year savings of 549,000 megawatt-hours ("MWh") of energy from measures installed in 2013. These savings, together with the savings estimated to be achieved from measures installed in 2011 and 2012, are equal to approximately 5 percent of APS's 2012 retail sales, which meets the Commission's EE Standard.

The savings in 2013 include 495,000 MWh from EE programs and 54,000 MWh from DR programs. Table 1 below summarizes the estimated savings and total program net benefits resulting from proposed EE program activities in 2013. The net benefits in Table 1 are in addition to the benefits achieved from APS's earlier DSM activities that were placed into service from 2005 through 2012. These savings from earlier DSM activities, although quite real, are not included in the estimated impacts in Table 1. For more detail on the savings achieved prior to 2012, please see the Company's DSM Semi-Annual Progress Report filings.

Table 1 Estimated 2013 EE Impacts

Program Budget	Annual Savings MWh	Lifetime MWh Savings ¹	Peak Demand Savings Megawatts	Total Net Benefits ²
\$76,476,000	495,000	5,447,000	93.9	\$66.9 Million

¹Savings are calculated over the expected lifetime of all program measures installed in 2013.

²The Total Net Benefits estimate incorporates savings over the expected lifetime of all program measures installed in 2013 and program costs including the cost of Measurement, Evaluation & Research and the Performance Incentive. Total Net Benefits are the difference between the present value of the societal benefits and the present value of the societal costs.

APS anticipates that it will be able to meet its 2013 DSM savings goal (an anticipated 549,000 MWh) and reduce the Demand Side Management Adjustment Charge ("DSMAC") from the current level. The requested funding for the 2013 Plan allows APS to meet the 2013 EE Standard. To fully implement the 2013 Plan, a total budget of \$87.6 million will be needed, of which \$76.5 million is allocated for EE programs and \$11 million allocated for DR programs. The true up mechanism that is in place will reduce the \$87.6 million needed by \$7.2 million, resulting in a lower DSMAC of \$0.002515 for residential customers, which is a reduction of 7.4 percent as compared to 2012 (see Table 4 for details).

The EE programs in this 2013 Plan are expected to produce cost effective long-term energy consumption and demand savings. For programs implemented in 2013, the program cost is estimated to be 1.4 cents per lifetime kilowatt-hour ("kWh") saved (total estimated program dollars divided by the total estimated kWh saved over the expected lifetime of all measures installed in 2013). This compares favorably to the estimated 1.6 cents per lifetime kWh saved from the 2012 Plan and the actual 1.6 cents per lifetime kWh in 2011.

II. Energy Efficiency Portfolio

APS proposes to continue implementation of the EE programs below in 2013 subject to a few program enhancements, as discussed in the June 1 filing. APS has provided work papers to the Commission Staff with all the inputs and methodology necessary to determine the benefits and costs for both the new measures and all of the current measures. The work papers replicated the Commission Staff methodology and also provided the standard methodology used by APS in the past.

APS proposes the following enhancements in this Supplement:

- Residential Consumer Products Super Efficient Incandescent Bulbs (new measure)
- Residential Consumer Products LED Bulbs (new measure)
- Residential Existing Homes Duct Repair (revised measure)
- Residential Home Performance with Energy Star Smart Strips (new measure)

The impacts of each of these new/enhanced measures is summarized below:

	Super Efficient		Prescriptive Duct	<u>Smart</u>
Average Annual Savings	Incandescent 25 kWh/Bulb	<u>LED</u> 37 kWh/Bulb	<u>Repair</u> 545 kWh/Unit	<u>Strips</u> 208 kWh/Unit
Customer Incentive	\$0.50/Bulb	\$5 to \$8/Bulb	\$200/Unit	\$22.49/Unit
Customer Payback	0.4 years	3.3 years	3.8 years	Immediate
Societal Benefit to Cost	1.5	1.1	1.6	1.1

III. Budget

The DSM budget consists of the following elements: A) the budget for EE programs, and B) the budget for DR programs. When combined, these two program budgets form the basis for the revenue requirements of the DSMAC. The DSMAC is then adjusted for a prior year true up, any gain on the sale of assets, and the amount already collected in base rates, to derive the final DSMAC revenue requirement.

Based on the proposed budget, APS anticipates that it will be able to meet its 2013 savings goal (an anticipated 549,000 MWh) and reduce the DSMAC from the current level.

A. Energy Efficiency Budget

Table 2 shows the anticipated 2013 EE spending by program. The budget in this Plan represents the estimated spending required to meet the 2013 EE savings goal of 495,000 MWh. These projections are based on APS's best estimates of market penetration for each program measure. Table 2 includes the budget, spending by program, and the estimated program performance incentive for 2013.

Approximately 70 percent of the projected program costs will benefit customers directly in the form of incentives, training, technical assistance, or education. The other 30 percent of program costs are needed for program implementation, marketing, and administration expenses and are necessary to deliver the EE programs to customers.

Table 2
APS Energy Efficiency Programs
2013 Estimated Budget

Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Administration	Financing	Program Total Cost
		Assessment and the second	R	esidential			**************************************	
Consumer Products	\$6,273,000	\$32,000	\$77,000	\$2,260,000	\$770,000	\$500,000	\$ 0	\$9,912,000
Residential HVAC	\$3,879,000	\$160,000	\$110,000	\$1,303,000	\$270,000	\$356,000	\$30,000	\$6,108,000
Home Performance w Energy Star	\$3,927,000	\$50,000	\$75,000	\$900,000	\$150,000	\$249,000	\$175,000	\$5,526,000
New Construction	\$5,156,000	\$120,000	\$15,000	\$375,000	\$495,000	\$470,000	\$ 0	\$6,631,000
Appliance Recycling	\$462,000	\$ 0	\$29,000	\$765,000	\$319,000	\$173,000	\$ 0	\$1,748,000
Low Income Weatherization	\$2,291,000	\$10,000	\$20,000	\$50,000	\$30,000	\$75,000	\$ 0	\$2,476,000
Conservation Behavior	\$ 0	\$6,000	\$10,000	\$954,000	\$ 0	\$85,000	\$ 0	\$1,055,000
Multi-Family	\$766,000	\$ 0	\$10,000	\$958,000	\$20,000	\$162,000	\$ 0	\$1,916,000
Shade Trees	\$75,000	\$ 0	\$13,000	\$199,000	\$15,000	\$30,000	\$ 0	\$332,000
Totals for Residential	\$22,829,000	\$378,000	\$359,000	\$7,764,000	\$2,069,000	\$2,100,000	\$205,000	\$35,704,000
			Non-	-Residentia	1			
Large Existing	\$14,543,000	\$449,000	\$ 111,000	\$4,182,000	\$765,000	\$335,000	\$ 70,000	\$20,455,000
New Construction	\$4,032,000	\$113,000	\$ 38,000	\$950,000	\$149,000	\$138,000	\$ 0	\$5,420,000
Small Business	\$3,392,000	\$100,000	\$ 27,000	\$777,000	\$161,000	\$145,000	\$10,000	\$4,612,000
Schools	\$1,724,000	\$89,000	\$ 29,000	\$616,000	\$120,000	\$69,000	\$ 0	\$2,647,000
Energy Info. Services	\$55,000	\$10,000	\$ 6,000	\$20,000	\$10,000	\$3,000	\$ 0	\$104,000
Totals for Non- Residential	\$23,746,000	\$761,000	\$211,000	\$6,545,000	\$1,205,000	\$690,000	\$ 80,000	\$33,238,000
Segment Totals	\$46,575,000	\$1,139,000	\$570,000	\$14,309,000	\$3,274,000	\$2,790,000	\$285,000	\$68,942,000
% of Cost By Category	67.6%	1.7%	0.8%	20.8%	4.7%	4.0%	0.4%	

Program Costs	\$68,942,000
Codes and Standards	\$400,000
Measurement, Evaluation & Research	\$2,500,000
Performance Incentive	\$4,634,000
TOTAL	\$76,476,000

B. Demand Response Budget

The budget projections are based on an aggregation of individual estimates for the various DR programs. Table 3 below shows a summary of the anticipated 2013 DR spending by program or initiative.

The initiatives in Table 3 include the 2013 Peak Solutions Program, the Marketing and Measurement, Evaluation, and Research ("MER") of Rate Options, and the HEI Pilot. The 2013 APS Peak Solutions costs include program administration, DR contract capacity and energy payments, and customer metering.

DR Marketing and MER of rate options includes Time of Use rates (ET-2, ECT-2, GS-Schools and Super Peak) and may include Peak Event Pricing and Peak Time Rebate and Interruptible rates. The HEI Pilot will test both DR and EE technology offerings.

Table 3
2013 Estimated Budget for
APS Demand Response Programs/Initiatives

Program /Initiatives	2013
APS Peak Solutions	\$8,065,000
Demand Response Marketing and MER of Rate Options	\$200,000
Home Energy Information Pilot Program	\$2,841,000
Total	\$11,106,000

1. Home Energy Information Pilot Program Extension and Budget Request

The HEI Pilot involves the deployment of four Home Area Network technologies as well as APS's Pre-Pay program. The HEI Pilot was approved in Commission Decision No. 72214 (March 3, 2011). APS was also granted an extension of time to implement the HEI Pilot in Commission Decision No. 73089 (April 5, 2012), through 2013 with no additional funding. The Pre-Pay element of the HEI Pilot was deployed in July 2012. Since deployment, over 1,000 customers have enrolled in the pre-pay program and initial feedback from customers has been positive. APS anticipates that the other four technologies, including critical peak

¹ Pursuant to Commission Decision No. 72215 (March 3, 2011), APS will be filing a report assessing the HEI Pilot by December 31, 2012.

pricing with customer control device, in-home energy information displays, direct load control, and use of "smart" communication devices to monitor and control demand (Programs A-D) will be ready for deployment by the end of the second quarter of 2013. These complex technology driven programs require several advanced systems to be securely integrated between APS and its vendors. As a result, they have taken more time and money to develop than was originally anticipated. Once these technologies are fully deployed, APS is seeking two full successive summers as part of its MER Study process in order to properly evaluate the persistence and validity of the individual technology assessments, as well as the associated customer behavior patterns. Thus, APS requests 1) to extend the HEI Pilot Programs A-D for an additional year, through the end of 2014, so that it may have two full, successive summer seasons of data for its MER study, 2) authorize APS to continue to recover the carrying costs associated with the HEI Pilot through the DSMAC up until the next rate case proceeding, 2 3) approve an additional \$310,000 of non-capital program costs through the extension period,³ and 4) approve an additional \$1,051,000 of capital costs⁴ through the extension period ending December 31, 2014, plus the amortization and recovery through the DSMAC of carrying costs associated with this additional capital spending by APS over the 48 months ending July 1, 2016. Only the non-capital costs and the carrying costs associated with the capital spending are collected through the DSMAC, which amounts to \$2.84 million related to the HEI Pilot in 2013.

C. Demand Side Management Adjustment Charge

The DSMAC mechanism structure agreed to by the parties in APS's 2009 Settlement Agreement allows for near concurrent recovery of DSM program costs and incentives. The DSMAC charge for March 2013 through February 2014 is estimated to recover the projected DSM program costs for calendar year 2013 (less \$10 million recovered in base rates, less the credit for certain gains for the sale of APS property, and less the credit for the 2011 DSMAC true-up.)

The estimated 2013 DSMAC charges of \$0.002515 per kWh and \$0.948 per kW, are lower than the present charges of \$0.002717 per kWh and \$0.9685 per kW. The bill impact will result in a reduction for the Residential customer class and the Non-Residential customer class. One reason for the decrease in DSMAC charges from 2012 to 2013 is that the 2009 program costs, which were collected over the three years from 2010 to 2012 in an effort to smooth out the costs of moving from a lagged cost recovery to a more concurrent cost recovery, have been fully recovered and are no longer factored into the 2013 DSMAC.

Attachment 1 contains the schedules supporting APS's proposed DSMAC rate calculation and Attachment 2 includes the corresponding DSMAC rate schedule necessary to recover the projected EE and DR costs. Table 4 is a summary of the DSM program costs used to

² When Decision No. 72214 approved the original \$698,837 in capital carrying costs, it was anticipated that these costs would be rolled into base rates in 15 months. This is no longer possible, hence the need to continue their recovery through the DSMAC until 2016.

³ This additional O&M is not needed until 2014 and therefore will not impact either the 2013 Plan budget or the 2013 DSMAC.

⁴ Capital costs are not recoverable through the DSMAC.

calculate APS's proposed 2013 DSMAC. With Commission approval, the 2013 DSMAC will be effective with the first billing cycle in March 2013.

Table 4 Estimated DSM Program Costs for 2013 DSMAC Charge

2013 DSM Budget

Energy Efficiency Program Costs	\$68,942,000
Codes & Standards	\$400,000
Measurement Evaluation and Research	\$2,500,000
Total Energy Efficiency (before incentive)	\$71,842,000
Performance Incentive	<u>\$4,634,000</u>
Total Energy Efficiency (with incentive)	\$76,476,000
Demand Response	\$11,106,000
Total 2013 DSM Budget	\$87,582,000

2013 Revenue Requirements for DSMAC

Total 2013 DSM Budget	\$87,582,000
Amount Recovered in Base Rates	(\$10,000,000)
Subtotal	\$77,582,000
Less Credit from True-up Balance	(\$7,155,000)
Less Interest on True-up Balance	(\$9,000)
Less Gain on Sale of Assets Balance	<u>(\$261,000)</u>
Total Revenue Requirement for 2013 DSMAC	\$70,157,000

IV. DSM Energy Savings and Benefits

APS's Plan, submitted on June 1, 2012, is designed to save an estimated first year 549,000 MWh of energy, which is estimated to be the amount necessary to achieve cumulative savings from 2011 to 2013 that are equivalent to approximately 5 percent of APS's retail sales forecasted for 2012 this amount meets the Commission's EE Standard requirement.

Table 5 provides details of the expected annual and lifetime energy savings and peak demand savings from each EE program and a summary of the net benefits generated for 2013. These are in addition to energy savings, costs and net benefits associated with APS DSM activities undertaken during the 2005 through 2012 timeframe, which are reported in APS's Semi-Annual DSM Report filings. The lifetime energy savings are the estimated savings that will result over the expected lifetime of all program measures installed in 2013. It is anticipated that, over the expected lifetime of all 2013 measures, the portfolio will produce net benefits of \$66.9 million, with a total societal benefit/cost ratio of 1.55 (societal benefits of \$188.5 million divided by societal costs of \$121.6 million.)

Table 5 Energy Efficiency Electric Savings Benefits¹ 2013 Programs

	Capacity Savings MW	Annual MWh Savings	Lifetime ² MWh Savings	Societal Benefits	Societal Costs ⁴	Net Benefits
·		F	Residential			
Consumer Products	14.5	134,400	929,700	\$31,143,000	\$16,373,000	\$14,770,000
Residential HVAC	10.0	14,600	162,200	\$10,153,000	\$7,766,000	\$2,387,000
Home Performance w Energy Star	5.6	10,000	148,000	\$8,042,000	\$7,684,000	\$358,000
New Construction	12.3	23,800	476,500	\$21,356,000	\$18,146,000	\$3,210,000
Appliance Recycling	1.7	11,700	70,200	\$2,539,000	\$1,322,000	\$1,217,000
Low Income Weatherization ³	0.2	1,700	30,600	\$866,000	\$866,000	\$0
Conservation Behavior	5.0	36,500	36,500	\$1,269,000	\$1,010,000	\$259,000
Multi-Family	0.5	7,600	67,900	\$2,080,000	\$1,869,000	\$211,000
Shade Trees	0.4	700	20,500	\$646,000	\$631,000	\$15,000
Totals for Residential	50.2	241,000	1,942,100	\$78,094,000	\$55,667,000	\$22,427,000
		Nor	ı-Residential			
Large Existing Facilities	24.8	174,600	2,388,800	\$73,467,000	\$43,597,000	\$ 29,870,000
New Construction	4.9	31,300	476,400	\$14,902,000	\$10,480,000	\$4,422,000
Small Business	4.6	25,400	366,200	\$12,051,000	\$5,655,000	\$6,396,000
Schools	3.0	17,300	222,800	\$7,288,000	\$4,936,000	\$2,352,000
Energy Information System	5.7	100	400	\$1,018,000	\$ 290,000	\$728,000
Totals for Non-Residential	43.0	248,700	3,454,600	\$108,726,000	\$64,958,000	\$43,768,000
Subtotal	93.2	489,700	5,396,700	\$186,820,000	\$120,625,000	\$66,195,000
Codes and Standards	0.7	5,000	50,000	\$1,698,000	\$980,000	\$718,000
Total	93.9	494,700	5,446,700	\$188,518,000	\$121,605,000	\$66,913,000

^{1.} All saving values are net of free riders and include system line losses and reflect ACC staff cost/benefit methodology (Decision No. 73089).

^{2.} Refers to savings over the expected lifetime of all program measures.

^{3.} Program costs include weatherization and bill assistance. Societal Costs do not include Bill Assistance because it does not contribute to electric savings. Consistent with Commission Staff's analysis in Decision No. 68647, the societal benefits of the Low Income program are equal to the societal costs.

^{4.} MER and Performance Incentive is accounted for within the Societal Cost for each program and each measure.

Benefit-Cost Ratio Methodology Used in this Plan

Decision No. 73089 (April 5, 2012) specified that "in all future DSM Implementation Plans, the Company use the same input values and methodology as Staff for calculating the present value benefits and costs to determine benefit-cost ratios." To comply with Decision No. 73089, APS assumed no monetization of carbon or other externalities using Staff's Societal Cost Test ("SCT") Methodology when calculating net benefits or when screening all measures submitted for approval in this 2013 Plan.

APS used its best approximation of Staff's inputs and methodology for calculating the SCT. The work papers used to screen all of the measures in the 2013 Plan were provided to Staff in June 2012. APS made its best efforts to match the Staff's approach, but understands that Staff may need to make adjustments to the results that APS derived. If necessary, APS will update the 2013 Plan net benefits and other relevant data should Staff request changes to the Company's approximation of Staff's methodology.

V. Performance Incentive

As directed by the Commission pursuant to Commission Decision No. 73183 (May 24, 2012), APS will be filing a revised Performance Incentive ("PI") structure before year end 2012 in this docket. The revised PI structure is being developed with input from industry stakeholders including Commission Staff, the Residential Utility Consumer Office, the Southwest Energy Efficiency Project, Western Resource Advocates, Arizonans for Electric Choice and Competition, Freeport McMoRan, and others.

Since discussions regarding the PI structure are ongoing, this filing assumes APS's current PI structure, as approved by the latest rate case Settlement Agreement (Decision No. 73183), for purposes of budget estimation. Pursuant to Section 9.14(d) of the Settlement, APS is requesting that any changes to the PI are implemented in 2014.

VI. Environmental Benefits

Consistent with AAC R14-2-1704, the Company has made a "good faith effort" to quantify the physical units of air emissions and water savings that may occur as a result of its EE programs.

In calculating these environmental benefits, APS believes that the most appropriate values to associate with EE measures are those from the newest combined cycle plants. These values are meant to reasonably approximate newer combined cycle plants and the air emissions and water consumption savings that may be avoided through EE measures. These natural gas fired plants represent APS's last significant dispatch group and a large portion of the market for power purchased by APS.

Table 6 estimates savings in water consumption and air emissions that could result from energy saved over the lifetime of the measures installed in 2013.

Table 6
Energy Efficiency Environmental Benefits
2013 Programs

	Water Mil Gal	SOx Lbs	NOx Lbs	CO2 Mil Lbs	PM10 Lbs			
Residential								
Consumer Products	295	4,137	78,606	836	22,964			
Residential HVAC	51	722	13,714	146	4,006			
Home Performance with Energy Star	47	659	12,513	133	3.656			
New Construction	151	2,120	40,288	428	11,770			
Appliance Recycling	22	312	5,935	63	1,734			
Low Income Weatherization	10	136	2,587	28	756			
Conservation Behavioral	12	162	3,086	33	902			
Multi-Family	22	302	5,741	61	1,677			
Shade Trees	6	91	1,733	18	506			
	616	8,641	164,203	1,746	47,971			
	Non-Resid	dential			·			
Large Existing Facilities	757	10,630	201,973	2,148	59,003			
New Construction	151	2,120	40,280	428	11,767			
Small Business	116	1,630	30,962	329	9,045			
Schools	71	991	18,838	200	5,503			
Energy Information System	0	2	34	. 0	10			
Totals for Non-Residential	1,095	15,373	292,087	3,105	85,328			
Total	1,711	24,014	456,290	4,851	133,299			

Note: The environmental benefits listed above occur over the expected lifetime of EE measures installed in 2013.

The values APS used to calculate the EE environmental benefits are listed below.

SOx 0.00445 lbs/MWh
NOx 0.08455 lbs/MWh
CO₂ 899 lbs/MWh
PM10 0.0247 lbs/MWh
Water 317 gallons/MWh (utility water savings only)

VII. APS Resource Savings Initiative

APS continues to investigate the savings impacts of various EE improvements to APS's system resources. System efficiency improvements result in measureable EE savings that are just as real as any savings that the Company can achieve with customer funded EE incentives for actions taken on the customer side of the meter. EE improvements at the system level exert a downward pressure on APS rates because they reduce system costs for all customers without forgoing retail sales. System improvements can also serve to leverage investments in technology starting at the source of generation and continuing to the customer meter without needing to fund customer incentives, thus reducing upward pressure on DSMAC charges.

APS is not asking that any of these APS system efficiency improvements be funded through the DSMAC, only that the resulting savings be counted toward meeting the EE Standard. APS knows these types of savings will prove to be beneficial to all APS customers by reducing APS's cost to serve and will ultimately help APS achieve energy savings goals at a lower overall cost to all of our customers. The system efficiency improvements described below will benefit customers by reducing upward pressure on the DSMAC and help APS meet Commission mandated EE goals.

The EE Rules do not preclude APS from counting generation and facilities improvements toward meeting the cumulative energy savings goals. APS plans to include energy savings from generation improvements and facilities upgrades in its 2013 DSM Progress Report and apply those savings toward meeting the EE goal in 2013 as well as including them in APS's 2014 Implementation Plan. However, the EE Rules do not allow delivery system improvements to be counted. Because delivery system savings provide measurable energy savings that benefit all APS customers, APS is requesting that the Commission allow APS to count delivery system improvement savings toward meeting EE goals. Therefore, APS is requesting relief from the prohibition on counting energy delivery savings contained in R14-2-2404(H) to allow APS to count these very real savings toward meeting EE goals.

Generation and Facility Improvements

Generation and facilities improvements include those actions that APS takes to improve its facilities, generation systems and portfolio mix of the power plants from year to year. Often times these improvements result in significant energy savings. Examples of generation improvement energy savings that APS plans to count toward meeting the EE standard include projects that reduce a power plant's auxiliary power or decommissioning of a less efficient plant and replacing it with a more efficient plant. Examples of facilities improvement energy savings that would be counted toward meeting the EE standard include projects such as installation of more energy efficient lighting and HVAC systems in APS offices and facilities, and other whole building and technology upgrades similar to those that APS promotes to its customers within the Solutions for Business program.

Delivery System Improvements

Delivery system improvements that APS proposes to count toward meeting the EE standard include: installation of high efficiency transformers that reduce energy losses; and installation of integrated Volt VAR controls. Volt VAR controls include a collection of sensors, voltage measuring and regulating control devices, analytical software, and communications products, that work together to allow a utility to continuously analyze and control distribution power factor and system voltages that increase system efficiencies and reduce parasitic energy losses.

Generation and Delivery system improvements reduce the amount of annual energy and capacity required to serve APS's customers. Unlike standard energy efficiency measures, the benefits of system improvements are not paid for through the DSMAC and do not result in unrecovered fixed costs. Moreover, all customers have the opportunity to benefit equally from the reduction in capacity and energy requirements rather than the participating (in EE) customer receiving the bulk of program benefits.

VIII. Freeport McMoRan Exclusion

During the Open Meeting approving APS's 2012 DSM Plan,⁵ the Commission requested that APS assess the impacts of exempting the Freeport McMoRan ("Freeport") Bagdad mine from the DSMAC and correspondingly eliminating the kWh sales from the calculation of required EE savings.

Freeport has participated in the energy efficiency self-direction option that is available to APS extra-large customers that consume more than 40,000 MWh per year. Self-direction allows participating customers to reserve their DSM contributions, less administrative and other program costs, for their exclusive use to help fund qualifying DSM projects at their facilities. The proposed 2013 DSM plan currently anticipates that Freeport will continue to participate in this option in 2013.

The requested scenario would exempt Freeport from the DSMAC charge, discontinue their eligibility to participate in APS's DSM programs, including self-direction, and reduce APS's required DSM goals, expressed as a percentage of total sales, by removing Freeport's sales from the total amount.

In general, this scenario would reduce both the funding and the goals for energy efficiency, along with the DSMAC revenue requirements and charges, thus providing a benefit to other customers. The specific 2013 impacts on 1) the DSM MWh goal, 2) the DSM budget, 3) the DSMAC revenue requirements, 4) DSMAC revenue collection, 5) the net impact to other customers and 6) DSMAC rates are provided in Table 7.

Under the scenario excluding Freeport, APS's 2013 DSM goal would be reduced from approximately 549,000 to 520,200 MWh, which is 28,800 MWh or 5.2 percent lower than when Freeport is included. The 2013 DSM budget is assumed to be reduced by the same 5.2 percent, or roughly \$4.6 million. Similarly, the 2013 revenue requirements for both DSM in general and the DSMAC would also be reduced by \$4.6 million. As a result, the potential DSMAC charges for 2013 would be reduced for both residential and non-residential customers by 4.6 percent and 6.5 percent respectively.

⁵ March 27, 2012.

Table 7
Impact of Exempting Freeport from the 2013 DSMAC Charge

	Include Freeport	Exclude Freeport	Change	Percent Change
DSM Goal (MWh)	549,000	520,200	(28,800)	(5.2)
DSM Budget (\$)	87,582,000	82,988,000	(4,594,000)	(5.2)
DSMAC Revenue Requirement (\$)	70,157,000	65,563,000	(4,594,000)	(6.5)
Revenue no Longer Collected through the DSMAC by Excluding			788,000	
Freeport (\$) Net Impact to Other Customers (\$)			(3,806,000)	

Notes: Exempting Freeport from the DSMAC charge:

- a. Reduces DSMAC revenue by \$788,000 per year based on the proposed 2013 rates.
- b. Results in a net benefit of \$3,806,000, which equals a \$4,594,000 reduction in the DSMAC revenue requirement, less a \$788,000 reduction in DSMAC revenue.
- c. Reduces proposed 2013 DSMAC rates from \$0.002515 \$/kWh to \$0.002040 \$/kWh and \$0.948 \$/kWh to \$0.886/kW.

IX. Unrecovered Fixed Cost Sensitivity

APS has reviewed the effect of allocating various levels of UFC to EE programs, per the request of the Commission during the March 27, 2012 Open Meeting.

APS evaluated the impact of UFC on program cost effectiveness and is presenting the results using two different approaches. The first approach allocates the full amount of UFC to each program based on the share of overall savings that program produces. The second approach allocates only the UFC costs that remain unrecovered after taking into account the recovery of a portion of UFC currently being recovered through the Lost Fixed Cost Recovery ("LFCR") mechanism approved in APS's 2012 Rate Case Settlement.

In both approaches, APS tries to replicate ACC Staff's cost effectiveness methodology with MER and PI costs allocated to each measure and program as the starting point for analyzing UFC costs. The results from the two approaches are described below and summarized in Table 8.

Approach #1: Allocating full UFC amount

The result of allocating full UFC costs to each program and measure would be to render nearly all of APS' current Energy Efficiency Programs not cost effective. All EE programs, with the exception of the Energy Information Systems ("EIS") program, would not pass the SCT if full UFC costs were borne by those programs. In other words, all EE programs would have a SCT ratio of less than 1.0, with the exception of the EIS program. The residential Low Income Weatherization program would continue to be deemed to have an SCT ratio of exactly 1.0.

Approach #2: Allocating only the difference between full UFC and the LFCR amount already being collected

The result of allocating only the unrecovered portion of UFC to each measure and program also has a significant impact on the SCT results. Allocating these UFCs directly to the measures and programs results in only three residential EE programs (Consumer Products, Residential HVAC, and Residential New Construction) marginally passing the SCT test. Five residential programs were estimated to have a SCT ratio of less than 1.0 with this allocation and the Low Income Weatherization program would continue to be deemed to have an SCT ratio of exactly 1.0. Only two Non-Residential EE programs pass the SCT cost test (EIS and Small Business), thus a significant portion of APS' Non-Residential portfolio will not pass the SCT as a result of allocating UFC costs to the programs.

Under either approach, the allocation of additional UFC costs to the EE programs will result in fewer programs passing the SCT and fewer programs being considered cost effective. It should be noted that low cost, high savings programs are more negatively impacted when allocating UFC to each program.

Table 8 below contains the SCT rates for each program under both approaches.

Table 8
Results of UFC Analysis: UFC Scenarios Using Staff Methodology

APS EE Program	ACC Staff Method with MER & PI	#1 Full UFC (.0651 per kWh)	#2 UFC Minus LFCR (.03339 per kWh)		
Residential:					
Appliance Recycling	1.92	0.62	0.92		
Consumer Products	1.90	0.70	1.00		
Res HVAC	1.31	0.91	1.06		
Behavioral	1.26	0.13	0.23		
Res New Construction	1.18	0.90	1.01		
Multi-Family	1.11	0.57	0.74		
Home Performance	1.05	0.80	0.90		
w/Energy Star					
Shade Trees	1.02	0.82	0.90		
Low Income Weatherization ¹	1.00	1.00	1.00		
Residential Sub-Total	1.40	0.72	0.94		
Non-Residential:					
Energy Information Systems	3.51	3.23	3.33		
Small Business	2.13	0.92	1.15		
Large Existing	1.69	0.78	0.96		
Schools	1.48	0.73	0.89		
New Construction	1.42	0.76	0.91		
Non-Residential Sub-Total	1.67	0.79	0.97		
Total APS EE Programs	1.46	0.76	0.96		

¹ Consistent with ACC Staff's analysis in Decision No. 68647, the societal benefit is equal to the societal cost, resulting in a benefit to cost ratio of 1.00 and net benefits of 0.

It should be noted that including UFC as an EE program cost in determining individual program cost effectiveness is not consistent with accepted industry practice when using the SCT. EE industry best practices treat UFC as a ratemaking issue, rather than a cost created by the EE programs that must be allocated back to each program in determining their cost effectiveness.

DSMAC Schedules

Attachment 1

DSMAC Adjustor Rate Schedule

Attachment 2

Attachment 1 DSMAC Schedules

ESTIMATED

ARIZONA PUBLIC SERVICE COMPANY DEMAND SIDE MANAGEMENT PROGRAM

True-Up Period DSMAC

March 2011 -Revenue for

Line No.

February 2012 Total 71,784,000

¹ Recovery period is March 2011-February 2012 for costs associated with the 2009 carry over.

ESTIMATED

ARIZONA PUBLIC SERVICE COMPANY DEMAND SIDE MANAGEMENT PROGRAM

Forecast Period (B) True-Up Period €

8	31,842,000 ²	0	4,634,000	66,476,000	11,106,000	7,582,000
2013	\$ 61,8		4,6	\$ 66,4	11,1	\$ 77,5
			m			
2011 and 2009 Carryover	46,243,000	4,956,000	7,392,000	58,591,000	6,038,000	64,629,000
2011				s		s
Program	Energy Efficiency (EE) Program Costs (PC)	2009 Recoverable DSM Program Costs	Performance Incentives (PI)	Sub Total	Demand Response (DR) PC	Total
Line No.	П	7	က	4	2	9

Total 2011 costs of \$64,629,000 equals \$69,673,000 less \$10,000,000 recovered in base rates plus \$4,956,000 of 2009 DSMAC carryover expense.

² Projected costs of 2013 Implementation Plan less \$10,000,000 recovered in base rates. 3 Total Perfomance incentive of \$8,777,000 less \$1,385,000 amount recovered in base rates.

ESTIMATED

ARIZONA PUBLIC SERVICE COMPANY DEMAND SIDE MANAGEMENT PROGRAM

	Amount	71,784,000	64,629,000	7,155,000	0.12%	000'6	7,164,000
		❖	❖	\$		❖	\$
	Reference	Schedule 1, Line 1, Column A	Schedule 2, Line 6, Column A	(Line 1 - Line 2)		(Line 3a * 3b)	(Line 3a + Line 4)
	Cost, Collection and Interest	DSMAC Revenue - TU	DSMAC Program Costs - TU ¹	Sub Total	Interest Rate	Interest Amount	Total TU Balance Account
	Date Period	March 2011 -February 2012	January 2011 - December 2011		Treasury constant maturities rate January 2012		
Line	No.	н	7	3a	3b	4	S

¹ Also includes 2009 costs carried over to 2011.

ESTIMATED

ARIZONA PUBLIC SERVICE COMPANY DEMAND SIDE MANAGEMENT PROGRAM

					ements							
	Units				70,157,000 Total Revenue Requirements	kwh	per kWh	, .			kW	0.948_per kW
	Amount	77,582,000	(7,164,000)	(261,000)	70,157,000	27,893,879,000 kWh	0.002515 per kWh	13 125 437 000 kWh		33,010,474	34,815,772 kW	0.948
		\$	s		\$		ب			\$		\$
	Reference	Schedule 2, Line 6, Column B	Schedule 3, Line 5		(Line 1 + Line 2A + Line 2B)		(Line 3 / Line 4)			(Line 5 * Line 6)		(Line 7 / Line 8)
	o. DSMAC Calculations	l Program forecast costs for adjustor period in 2013	2A Recovery of True-Up Account (over) under collection	28 Credit for Gains from Asset Sales (over) under collection	3 Total amount to be collected	Forecast retail kWh sales for adjustor period ¹	Proposed kWh adjustor charge for adjustor period ²	Forecast General Service kWh sales for adjustor period ³	Amount to be collected from General Service demand metered	customers for adjustor period	3 Forecast General Service demand billed customer kW	Proposed kW adjustor charge for forecast period 4
Line	Š	Т	24	2E	33	4	2	9	7		∞	6

¹ Forecast retail kWh sales includes E-3 and E-4 kWh.

^{. \$/}kWh charge for all residential customers and general service customers with no demand charge.

Forecast general service kWh for customers with demand charges.

^{4 \$/}kW charge for general service customers with demand charges.

Attachment 2 DSMAC Adjustor Rate Schedule Clean and Redlined



ADJUSTMENT SCHEDULE DSMAC-1 DEMAND SIDE MANAGEMENT ADJUSTMENT CHARGE

APPLICATION

The Demand Side Management Adjustment Charge ("DSMAC") shall be applied monthly to every metered and/or non-metered retail Standard Offer or Direct Access service. All provisions of the customer's currently applicable rate schedule will apply in addition to this adjustment charge. The DSMAC is applied to Standard Offer or Direct Access customer's bills as monthly charge to recover the cost of Commission approved demand side management programs above those costs included in base rates. The DSMAC will be changed in billing cycle 1 of the March revenue month and will not be prorated. The DSMAC and the RES adjustors may be combined on the customer's bill and appear on the "Environmental Benefits Surcharge" line. Details of how the DSMAC is derived and administered can be found in the Demand Side Management Adjustment Charge Plan for Administration.

RATE

The charge shall be calculated at the following rate:

For all residential customers and general service customers whose billing does not include demand charges:

All kWh

\$0.002515

per kWh

For general service customers whose billing includes demand charges:

All billed kW

\$0.948

per kW

SELF DIRECTION

Self direction of DSM charges collected through base rates and Adjustment Schedule DSMAC-1 shall be available for customers who use more than 40 million kWh per year, based on an aggregation of the usage for all the customer's accounts for the January through December billing months in the year the request for self direction is made.

Qualifying customers who elect to self direct their DSM charges must notify APS on or before December 1st in each year that they wish to self direct. Upon such notification, and verification of eligibility by APS, 85% of the customer's DSM charges paid over the January through December billing months in the election year will be reserved for tracking purposes for the customer's eligible energy efficiency project(s) to be completed within two years. The remaining 15% will be retained to cover the self direction program administration, management and verification, measurement and evaluation, and low-income program costs.

Customers who elect to self direct must continue to pay the DSM charges in base rates and Adjustment Schedule DSMAC-1.

Self direction shall be provided in accordance with the Self Direction Provisions approved in Arizona Corporation Commission (Commission) Decision No. 71448, Attachment C to the Settlement Agreement as modified from time to time with Commission approval.

Self direction amounts shall be the DSMAC-1 charges billed over the election year plus the DSM charges recovered in base rates. The latter shall be calculated by multiplying the kWh billed for the System Benefits Charge in the customer's current applicable rate schedule multiplied by \$0.000359 per kWh.



ADJUSTMENT SCHEDULE DSMAC-1 DEMAND SIDE MANAGEMENT ADJUSTMENT CHARGE

APPLICATION

The Demand Side Management Adjustment Charge ("DSMAC") shall be applied monthly to every metered and/or non-metered retail Standard Offer or Direct Access service. All provisions of the customer's currently applicable rate schedule will apply in addition to this adjustment charge. The DSMAC is applied to Standard Offer or Direct Access customer's bills as monthly charge to recover the cost of Commission approved demand side management programs above those costs included in base rates. The DSMAC will be changed in billing cycle 1 of the March revenue month and will not be prorated. The DSMAC and the RES adjustors may be combined on the customer's bill and appear on the "Environmental Benefits Surcharge" line. Details of how the DSMAC is derived and administered can be found in the Demand Side Management Adjustment Charge Plan for Administration.

RATE

The charge shall be calculated at the following rate:

For all residential customers and general service customers whose billing does not include demand charges:

All kWh

\$0.0027170.002515

per kWh

For general service customers whose billing includes demand charges:

All billed kW

\$0.96850.948

per kW

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ARIZONA PUBLIC SERVICE COMPANY

Phoenix, Arizona

Filed by: David J. Rumolo Charles A.

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Title: Manager, Regulation and Pricing Original Effective Date: April 1, 2005

A.C.C. No. 5799-XXXX Canceling A.C.C. No. 5798-5799 Adjustment Schedule DSMAC-1

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